

Common Breast Conditions – When To Refer And What Will The Specialist Do?

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Summary

When a woman presents with a breast symptom, the family physician has to decide whether there is a risk of cancer or whether the symptoms can be managed without referral to the breast surgeon. This article describes common breast conditions encountered in family medicine, with emphasis on guidelines for referral and principles of management. (HK Pract 1998;20:260-268)

摘要

當婦女主訴乳房不適時，家庭醫生須判斷症狀是否與癌症有關，是否須轉介給乳房外科醫生。本文描述日常診治中常見的乳房症狀，著重說明轉介專科的指引及其治療原則。

Introduction

The majority of women who present to the family physician (FP) with breast symptoms do not have breast cancer. Even in a specialist symptomatic breast clinic, breast cancer is found only in 10% of all referrals. Initial investigation of breast symptoms should be by clinical examination. If there is any doubt in the FP's mind that the breast is other than entirely normal, then an opinion from a breast surgeon should be sought. Reasons for referral to a symptomatic breast clinic include the

feeling of a lump in the breast, nipple discharge, eczema or other nipple-related problems, and breast pain. Sometimes women with family history of breast cancer or with past history of breast biopsy showing high-risk lesions are referred for assessment. Miscellaneous reasons for referral are breast enlargement in men, accessory breasts or nipples, and advice on the use of mammography or hormone replacement therapy (HRT).

The approach to these common breast conditions will be discussed highlighting the role of the FP in the management algorithm. The steps

undertaken by the breast surgeon upon seeing the referrals will be briefly mentioned.

A lump in the breast

Among all breast symptoms, the feeling of a lump is the commonest reason for a woman to seek medical advice, although most breast lumps are benign and not all of them need to be removed. Once the FP confirms the presence of a lump on physical examination, the woman should be referred for further assessment.

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Sometimes a 'lump' does not appear discrete and could be due to thickening as a result of benign breast change. If this occurs just prior to the woman's next menstrual period, it is acceptable for the FP to re-examine her about 10–14 days after the period and to consider referral if the palpable abnormality persists. Under all other circumstances the woman should be seen by a breast surgeon, the particular skill and training of whom lie in deciding whether a true lump is present or not.¹

A discrete solid lump is dealt with by the triple assessment process that comprises clinical examination, imaging (ultrasound examination together with mammography in women above the age of 35) and fine needle aspiration cytology. The old dictum that no woman should have a lump in her breast is no longer valid. Between 30% and 50% of fibroadenomas would become smaller or resolve with time.²⁻⁴ Using a combination approach, the triple assessment process provides a high diagnostic accuracy of 98% or more.^{5,6} The possibility of malignancy is minimal if the lump appears clinically, radiologically and cytologically benign. Another concern is the entity of phyllodes tumour. More than 90% of phyllodes tumour are benign. They do not metastasise but are locally aggressive and should be widely excised with adequate margins. However they can mimic fibroadenoma on triple assessment. Owing to their locally aggressive nature, they tend to be of larger size when first presented. The author therefore recommends excisional biopsy of a solid lump from the breast if it fails the criteria of the triple assessment process or if it is larger than 3 cm. Finally the woman's wish

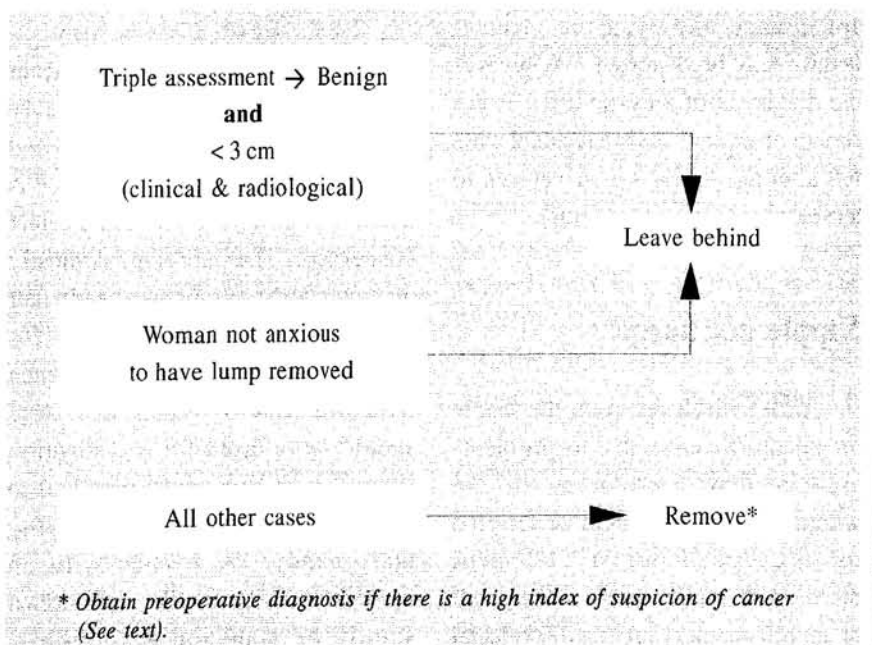
to have the lump removed should not be forgotten (**Figure 1**).

A follow-up in six months may be necessary to detect increase in size of the lump in case an early phyllodes tumour has not been diagnosed in the first instance. To further increase the diagnostic accuracy of triple assessment, some centres have suggested doing a second fine needle aspiration cytology.^{7,8} On the other hand, the use of core biopsy as an adjunct to triple assessment has been advocated to further obviate the need of unnecessary open surgical biopsy.⁹ Core biopsy would also be useful for a woman with a lump which is most likely malignant but has an inconclusive cytology. In modern breast cancer management, one should aim at making a preoperative diagnosis in over 90% of women with breast cancer so that adequate counselling and treatment planning can be carried out.¹ In the author's series, 83% of primary breast cancers were

diagnosed preoperatively by either fine needle aspiration cytology or core biopsy, which could be image-guided if necessary.¹⁰ The use of intraoperative diagnostic frozen sections had therefore been abandoned.

Diagnostic pitfalls sometimes occur in such cases as inflammatory mass, fat necrosis and scar due to previous surgery. An inflammatory mass can mimic cancer with possible appearance of an irregular mass with nipple retraction, skin tethering, oedema and even peau d'orange. Fine needle aspirates however show inflammatory rather than malignant cells. A six-week period of observation to allow complete resolution is acceptable. Fat necrosis often appears in old women and the history of trivial trauma is not noticed. A telltale sign with a tinge of bruise over the lump can occasionally be seen. Again the cytology should be composed of degenerative fat cells and foamy

Figure 1: Management of a discrete solid lump in the breast



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macrophages rather than cancer cells. Most fat necrosis resolve in six weeks. Past history of breast operations should be sought since the presence of a surgical scar might produce skin tethering or unexplained radiological signs and cause unnecessary alarm and biopsy.

Simple cysts are common in women starting from their 30's till menopause. They can also be found in postmenopausal women receiving HRT. The diagnosis should ideally be made by ultrasound examination which can also exclude the possibility of an intracystic tumour. A palpable simple cyst is treated by needle aspiration. A FP who has acquired experience in the technique may perform the aspiration when a breast lump is clinically cystic, when the woman is in the correct age range and when she has had a previous cyst aspirated. The advantage of the FP aspirating a cyst is the immediate relief of anxiety and avoidance of an outpatient referral. The disadvantage is that if the lesion proves to be solid rather than cystic, the imaging appearance and even the clinical feature may be distorted.¹ Whenever the diagnosis of a cystic lump is not certain or when there is a residual mass felt after needle aspiration, referral to a breast surgeon is mandatory.

Nipple discharge

Milky discharge from the nipple or galactorrhoea is due to problems associated with prolactin and the woman concerned should be referred to an endocrinologist. Purulent discharge from the nipple is the result of an inflammatory process. Periductal

mastitis, which may be associated with smoking, presents with recurrent periareolar abscess formation together with a mamillary duct fistula causing purulent discharge from the diseased duct. The entity should be identified and treated by a breast surgeon.

Non-galactorrhoeic and non-purulent nipple discharge is the commonest form of nipple discharge seen in a symptomatic breast clinic and is the sole presenting complaint in 1.5% of women referred to such clinic according to the author's experience.¹¹ With a careful history and physical examination, two broad categories of discharge are noted. Provoked, intermittent, bilateral and multi-duct discharge tends to be physiological and surgically insignificant. Provided that there is no palpable abnormality and the discharge is not disturbing to the woman concerned, the FP can safely reassure her. If the discharge is profuse and disturbs the woman's daily life, she should be referred for consideration of duct excision.

The second category is pathological and surgically significant discharge which is classically spontaneous, persistent, unilateral and from a single duct. The discharge is due to an underlying lesion in the duct concerned. The pathology is mostly duct papilloma, comprising nearly half of all cases and cancer accounts for less than 10% of cases.^{11,12} All women with this kind of nipple discharge should be referred for investigation since clinical assessment alone fails to identify cases with an underlying malignancy. A woman with an associated lump in the same breast should be managed accordingly.

Subsequent assessment for a woman with discharge only includes mammography and discharge cytology. Mammography is most useful^{13,14} while discharge cytology, though not very sensitive, is simple and specific.¹⁵ Women with no positive findings on clinical, radiological and cytological assessment are not at risk of cancer and can be safely followed up.^{12,16} Since over 70% of nipple discharge would resolve eventually,¹⁶ excision of the discharging duct by microductectomy is not necessary unless the woman is anxious to have it done (Figure 2).

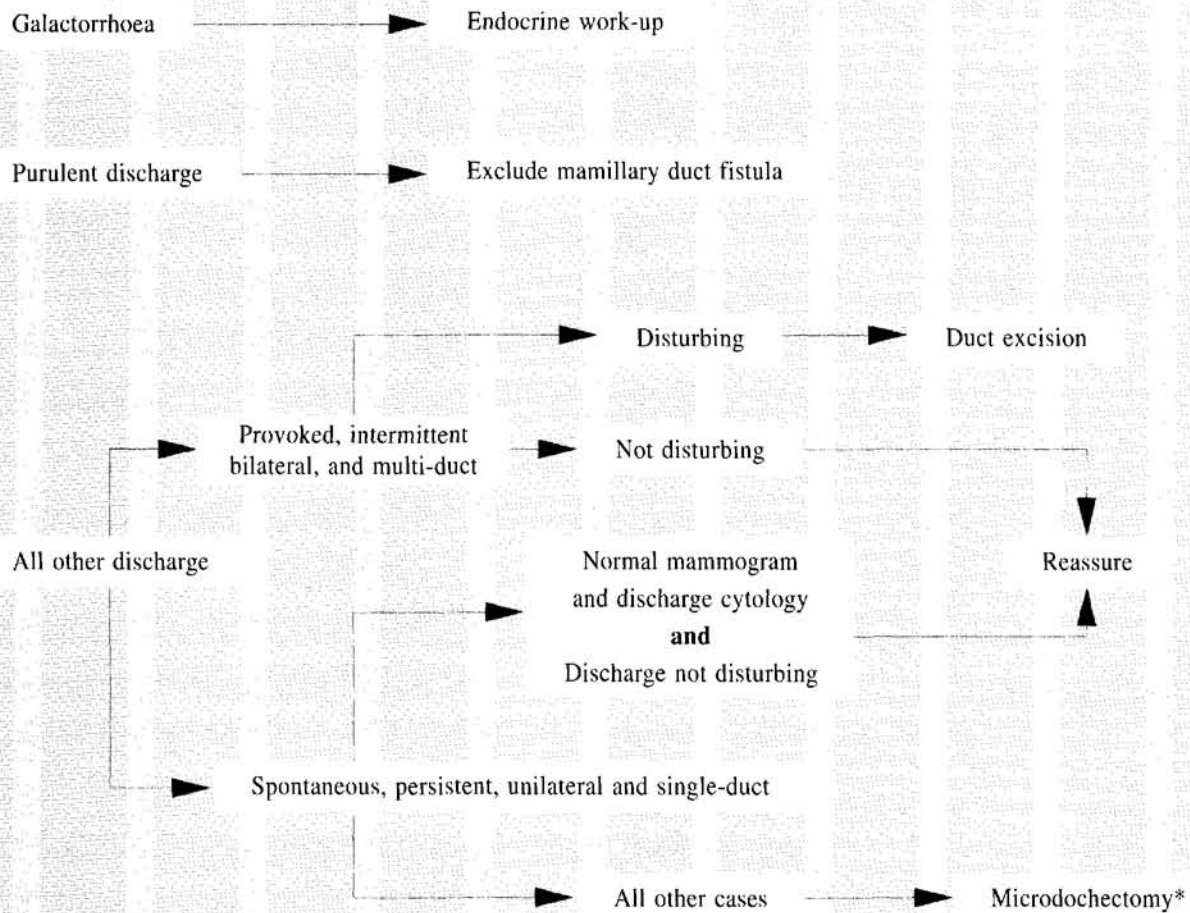
Mastalgia

Mastalgia is a common problem affecting 70% of women some time in their life.^{17,18} However, only 15% have disturbing pain which requires treatment.^{17,19} Breast pain alone without clinical abnormality is rarely due to cancer and imaging is not indicated. Specialist referral for mastalgia is therefore only necessary for women either with a clinical abnormality or with pain which affects the quality of life.

After excluding a clinical abnormality by a careful physical examination, a woman with disturbing mastalgia can be managed according to the pattern of the pain. Mastalgia is either cyclical or non-cyclical. General advice to reduce cyclical mastalgia includes a supportive bra of the correct size, reduction of weight, fat and caffeine intake. Discontinuation of cigarette smoking, changing the brand or dose of oral contraceptive or HRT may also help. Specific first and

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Figure 2: Management of nipple discharge



* Obtain preoperative diagnosis if there is a high index of suspicion of cancer (See text).

second line drug treatments are gamolenic acid in evening primrose oil and danazol respectively, with approximately 60% and 70% response rates when used alone. Gamolenic acid is an essential fatty acid and has minimal side effects apart from occasional nausea, while danazol results in acne formation, hirsutism and weight gain. Over 90% of women with cyclical mastalgia would benefit by this treatment strategy.^{17,20} Other forms of drug treatment after failure of

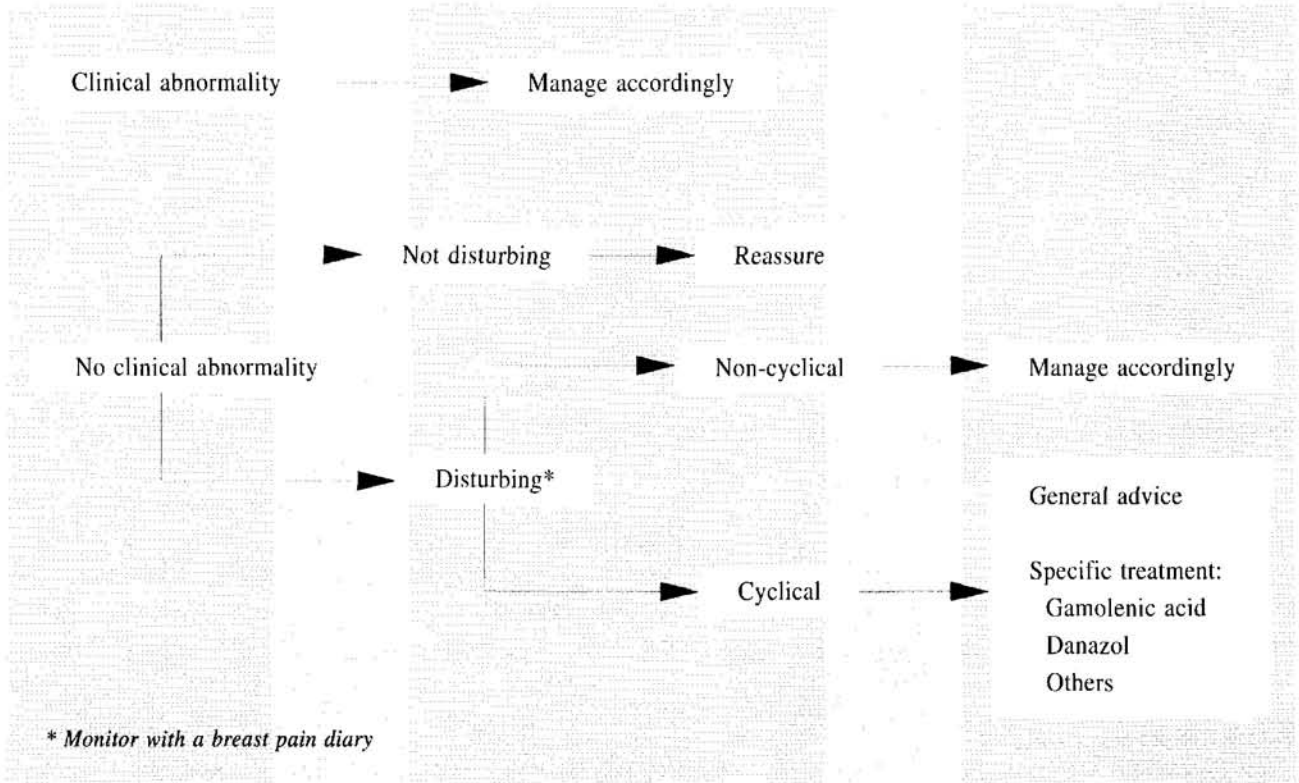
gamolenic acid and danazol include bromocriptine, goserelin and tamoxifen. The use of a breast pain diary is useful both in establishing the pattern and severity of pain as well as in the monitoring of treatment response.

Non-cyclical pain, on the contrary, responds less well to the above treatment strategy.²⁰ It is commonly due to either medial or lateral chest wall pain. Localised pain

could be treated by injection of steroid and/or local anaesthetic. Local or systemic non-steroidal anti-inflammatory drugs are useful in cases of diffuse chest wall pain. Nipple-areolar pain is treated by simple analgesic. Localised trigger points in the breast could also be dealt with by injection therapy as mentioned. Non-cyclical pain is sometimes part of a more generalised pain due to cervical spondylosis which should be managed accordingly.

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Figure 3: Management of mastalgia



Other issues

Access for mammography

Direct access for FP referral for mammography is not recommended. Open access mammography is unnecessary if access to a breast clinic is adequate.¹

Generally speaking mammography is indicated for assessment of a palpable abnormality in women above the age of 35.²¹ On the other hand, using mammography as a screening tool for early detection of breast cancer at the impalpable stage has only been unanimously shown to produce a significant survival benefit in women above the age of 50.^{22,23} Screening of breast cancer could however create problems including anxiety and unnecessary biopsies or

interventions. To be successful, it must be carried out in a centre which can provide an expeditious and high-quality service.²⁴

Ultrasonography is employed to assess a clinically palpable or mammographically detectable abnormality and has so far not been proven to be a useful tool for screening purpose.²⁵

Family history and high-risk lesions

Familial breast cancer only accounts for 5-10% of all breast cancer. An even lower incidence might be present in this locality.²⁶ Families with multiple members developing breast cancer, especially a bilateral one, at a young age are most at risk. Having a first-degree relative who developed breast cancer below the

age of 50 is considered significant. In addition, the risk of having a familial breast cancer decreases with increasing age, although the overall risk of breast cancer increases with age. A woman with family history of breast cancer may therefore be reassured by her FP who has taken a detailed history. Only those women who are at significant risk or who remain anxious despite reassurance by their FP need to be referred. Among over 3,000 referrals to a local symptomatic breast clinic, only 3.9% of women had family history of breast cancer.²⁷

Most benign breast problems would not significantly increase the risk of developing cancer. Lesions of significant risk such as atypical ductal or lobular hyperplasia are uncommon.

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Key messages

1. Most breast lumps are benign and do not require removal.
2. Most breast cysts are simple cysts and require only aspiration.
3. Most cases of nipple discharge are due to benign cause.
4. Breast pain alone without clinical abnormality is rarely due to cancer.
5. Mammography is indicated for (i) assessment of a palpable abnormality in women above the age of 35; and (ii) screening for cancer in women above the age of 50.
6. Familial breast cancer only accounts for 5-10% of all breast cancer.
7. Most benign breast problems do not significantly increase the risk of developing cancer.

Referral of high-risk women due to family history or atypical pathology provides an opportunity for risk assessment, counselling, possible early detection and participation in prevention studies and other research programmes.¹

Hormone replacement therapy

Current evidence shows that there is no increased risk of breast cancer in women who have used HRT for up to 10 years. Beyond this, there is a slightly increased risk, but this should be balanced against the protection offered by HRT against osteoporosis and cardiovascular disease. Women who have already got breast cancer require specialist advice on the use of HRT.

Miscellaneous breast conditions

Accessory breasts and nipples are found in less than 5% of men and women, the commonest sites being the low axilla and just below the normal breast respectively. The FP can reassure the individual that such conditions rarely require surgery, unless unsightly, although they are subject to the same diseases as normal breasts and nipples.

Gynaecomastia, the growth of breast tissue in males to any extent in all ages, is benign and usually reversible. It commonly occurs in puberty and old age. No treatment is required for pubertal breast enlargement since 80% resolve spontaneously in two years. A man with senescent gynaecomastia could be reassured after

eliminating uncommon predisposing causes such as drug, liver and testicular diseases by history and physical examination. Embarrassment and doubtful diagnosis are indications for referral. After the possibility of breast cancer has been excluded, symptomatic gynaecomastia may be treated by danazol or surgery.

Breast infection and abscess are common during lactation. Nowadays most breast infections could be prevented by attention to maternal and neonatal hygiene. Early infection is often successfully treated by an antibiotic which covers *Staphylococcus aureus*. The woman should be referred when there is no improvement or when there is suspicion of abscess formation. A

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breast abscess is treated either by repeated aspirations or incision and drainage. Draining an abscess in an infant or a teenage girl may damage the breast bud and affect the future breast development and should be performed by a breast surgeon. Non-lactating breast infection or abscess can be due to periductal mastitis which has been described. It can also be due to lobular granulomatous infection such as tuberculosis which usually occurs in the periphery of the breast. They are difficult breast problems which should be handled by a breast surgeon.

Nipple eczema must be distinguished from Paget's disease of the nipple which is associated with an underlying cancer. The latter usually affects the nipple from the start while eczema often involves the areola first and would respond to local application of steroid. When the diagnosis is in doubt or an apparent case of eczema fails to improve with steroid, the woman should be referred to a breast surgeon. The diagnosis could then be confirmed by an incisional biopsy of the nipple skin. ■

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